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REPORT

--OF---

JOHN H. WADE,

OF WASHINGTON COUNTY,

---AND---

SAMUEL J. TWILLEY,

OF WORCESTER COUNTY.

THE

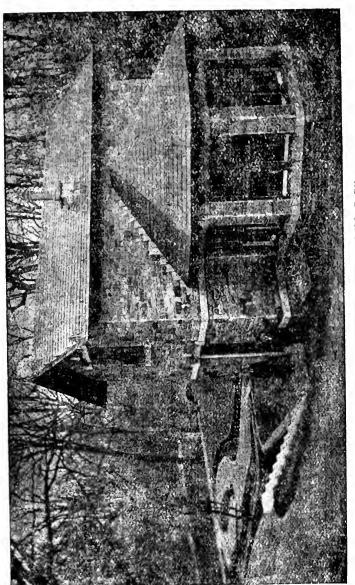
Commissioners of Fisheries OF MARYLAND

---FOR---

1910-1911.



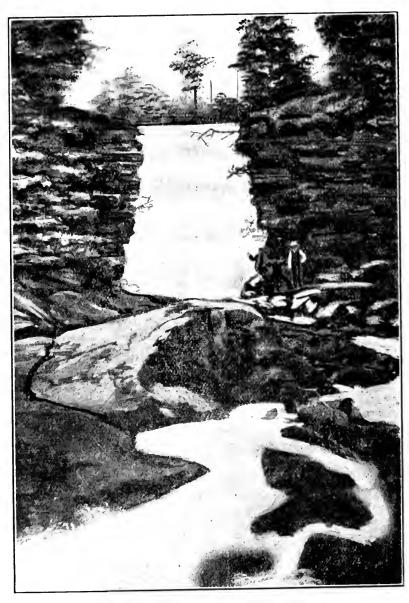
BALTIMORE:
KING BROS.
STATE PRINTERS,
E. LEXINGTON STREET,
1911.



STATE FISH HATCHERY, DRUID HILL PARK.

LIST OF FISH COMMISSIONERS OF MARYLAND

Western Shore.	$Eastern\ Shore.$
T. B. FERGUSON	1874-1875 PHILIP W. DOWNES.
T. B. FERGUSON	1876-1877PHILIP W. DOWNES.
T. B. FERGUSON	1878-1879Thomas Hughlett, Sr.
T. B. FERGUSON	1880-1881 THOMAS HUGHLETT, SR.
T. B. FERGUSON	1882-1883Thomas Hughlett, Sr.
G. W. DELAWDER	1884-1885Dr. E. W. Humphreys.
G. W. DELAWDER	1886-1887 Dr. E. W. HUMPHREYS.
G. W. DELAWDER	1888-1889Stephen P. Toadvine.
G. W. DELAWDER	1890-1891GRANVILLE R. RIDER.
RICHARD T. BROWNING	1892-1893John S. Sudler.
RICHARD T. BROWNING	1894-1895John S. Sudler.
JOHN E. GNAGEY	1896–1897James C. Tawes.
A. F. George	1898-1899John E. Sterling.
JESSE W. DOWNEY	1900-1901CLARENCE L. VINCENT.
JESSE W. DOWNEY	1902-1903CLARENCE L. VINCENT.
CHARLES F. BROOKE	1904–1905James, D. Anderson.
CHARLES F. BROOKE	1906-1907James D. Anderson.
JOHN H. WADE	1908-1909 SAMUEL J. TWILLEY.
JOHN H. WADE	1910-1911SAMUEL J. TWILLEY.



FALLS OF MUDDY CREEK-GARRETT COUNTY.

REPORT.

To HIS EXCELLENCY.

AUSTIN L. CROTHERS,

GOVERNOR OF MARYLAND:

Sir: We have the honor to present herewith the biennial report of the Fish Commissioners of Maryland for the years 1910 and 1911, as required by the laws of the State.

Your Commissioner for the Eastern Shore shows by statistics embodied in this report that a great work has been accomplished in the artificial propagation of shad and perch during these two years, and especially the year 1911, as conditions were not as favorable in 1910 as they have been this year, but taken together the work has far exceeded our expectations.

Shad and perch have been planted in all the rivers of the Eastern Shore in a systematic and thorough manner for which we commend our deputies and their assistants. That our work is appreciated by the people of the State is evidenced by the great number of letters we have received from every section asking for young fish and commending the work already done.

During the season of 1908-9 shad were hatched out in large numbers and placed in the waters of the State. Good results were evidenced by the public this year in the great numbers caught and the comparatively low price of this great food fish. Shad were sold in the Baltimore markets as low as 30 cents per pair. Many of these shad were caught in the sound and bay before they had reached the natural spawning ground. While we are pleased that the catch of shad was large and profitable we regret that a law is not on the statute-books of the State requiring all seines and pounds to be so raised from Saturday at sundown to one o'clock Monday morning during the fishing season, that more shad may

be able to reach the spawning grounds at the heads of the rivers, and by this means increase the number of young fry in the way nature intended. At the same time it would enable the Fish Commission to secure more eggs for hatching purposes.

We desire to call your attention to the millions of young yellow perch that have been planted in the rivers of the Eastern Shore during the past two years. We have been encouraged to continue this work by the spendid results obtained. Yellow perch are not prized by Marylanders as highly as the white perch, which has no superior as a pan fish, but commercially the yellow perch is outstripping all others. During the winter months they are shipped in large quantities to New York and other northern cities and bring from 15 cents to 20 cents per pound, and as they are more productive than any other kind of fish, are hardy and will live and thrive in all the flowing streams, they are naturally of great commercial value to the State.

We desire to extend our thanks to you for the encouragement you have given us in the work to which we were assigned, and assure you of our high appreciation of the same.

Your Commissioner for the Western Shore desires to report that in the winter of 1910, we placed on the screens at Druid Hill Park Hatchery one million (1,000,000) brook trout eggs, which were hatched and cared for until of a size to ship to the various people who had applied for them—The output was large, and a fair estimate of loss by death would not exceed fifty thousand (50,000).

The later part of April, we placed in the State Nursery at Lake Brown, Garrett County, Md., under the supervision of R. T. Browning, Assistant Fish Commissioner, one hundred thousand (100,000) of these fry, four months old. These fry were cared for by Mr. Browning until August, when a

heavy rain overflowed the troughs at the Nursery, necessitating our distributing the fry earlier than expected. We also received at the Nursery about this time, thirty thousand (30,000) brook trout fry from the U. S. Fish Commissioner which were used in stocking the spring streams of Garrett, Alleghaney and Washington Counties. In April, we received at Druid Hill Park Hatchery, sixteen and one half million (16,500,000) white and yellow perch eggs, which were hatched and distributed.

Owing to the run of shad being small in the spring of 1910, we were only able to secure about six hundred thousand eggs (600,000) for the Park Hatchery which we hatched and distributed. We would like to call your attention to the fact of the very large number of eggs handled, and to state that the facilities for hatching these kinds of fish at the Park are very poor.

The people seem to have found the worth of the yellow perch, and are continually urging that the output of this fish be increased.

In the winter of 1911, we placed on the screens one and one half million (1,500,000) brook trout eggs which we hatched and cared for at the Park Hatchery until a suitable size to distribute. Our estimate of the loss being about two hundred and fifty thousand (250,000). A very good proportion, owing to the very cramped condition of the hatchery.

During this season we stocked streams in every County on the Western Shore and a great many in Southern Maryland. In the spring we received fifty million (50,000,000) white and yellow perch eggs which were hatched and distributed to parties who had applied for them.

Later we received five million (5,000,000) shad eggs which were cared for and distributed as in former years. We stocked the Nursery with one hundred thousand (100,000) brook trout fry which were cared for by the Assistant Fish Commissioner and distributed by him as heretofore. The

reports from all sources have been very gratifying and we feel very much encouraged.

In our opinion another hatchery should be built for the Western Shore and equipped to take care of the increased demand for brook trout and other fry. Also that the Hatchery at Druid Hill Park be re-equipped, as the present equipment has been in use for nearly forty years and consequently in bad condition. To do this work an appropriation should be granted by the next Legislature, large enough to cover the cost.

We desire to express our thanks to the U. S. Fish Commissioner for courtesies extended the Maryland Fish Commission and to State Game Warden Horace F. Harmonson, Esq., for his co-operation with our work. Also to the newspapers of the State for their flattering reports of the work of this department of your administration.

Repectfully submitted,

Samuel J. Twilley,
Fish Commissioner for the Eastern Shore.

JOHN H. WADE, M. D., Fish Commissioner for the Western Shore.



WHERE TROUT ARE TO BE FOUND.

Distribution of Brook Trout and Black Bass from Maryland State Hatchery, Druid Hill Park, 1910.

Hatchery, Druid Hill Park, 1910.		
DATE.	APPLICANT. WHERE DISTRIBUTED.	
Feb. 16.	J. Hopkins Smith, Jr., Dimits Branch, Baltimore Co.	
Feb. 22	Wm. Waller CullenTuscarora, Frederick Co.	
March 22.	Talbott DenmeadStream, Baltimore Co.	
March 22.	Cumberland DuganStream, Baltimore Co.	
March 22.	James C. Gittings Beaver Run, Carroll, Co.	
March 22.	William Lynch Morrison Branch, Baltimore Co.	
March 22.	J. F. Billingslea Lancaster Branch, Baltimore Co.	
March 22.	Henry A. Haker Pond, Prince George's Co.	
March 23.	George Kinna Hunting Creek, Frederick Co.	
March 23.	P. C. GormanBeaver Run, Prince George's Co.	
March 23.	Edward A. CoekeyButler's Stream, Baltimore Co.	
March 24.	Josiah P. Wiley Falling Branch, Harford Co.	
March 25.	Irving E. McCullough Cold Spring, Baltimore Co.	
March 25.	William E. Armacost. Stream in Baltimore Co.	
March 26.	W. C. ToddSilver Lake, Caroline Co.	
March 26.	J. J. BensonPond in Anne Arundel Co.	
March 26.	Charles H. Isley Mine Branch, Harford Co.	
March 28.	Millard F. Randolph Pond in Montgomery Co.	
March 28.	Thomas F. NagleThomas' Run, Harford Co.	
March 28.	J. W. F. BurgoonGunpowder Falls, Carroll Co.	
March 29.	George T. ShermanWilliams' Stream, Harford Co.	
March 29.	S. H. MitchellBread and Cheese Br'neh, Harford Co.	
March 29.	Norman Z. Hoke Town's Creek, Frederick Co.	
March 29.	Wm. F. EckenrodeFairview Pond, Carroll Co.	
March 29.	Runerna H. Hewitt Pond in Montgomery Co.	
March 29.	Francis B. Staub Mountain stream, Frederick Co.	
March 29.	Edward Quarles Tobacco Run, Harford Co.	
March 29.	George W. Crum Biser's Creek, Frederick Co.	
March 29.	John S. Harman Beaver Run, Carroll Co.	
March 30.	H. C. Harris Stream in Baltimore Co.	
March 30.	T. Melville Pearce Barns' Branch, Baltimore Co.	
March 30.		
March 30.		
March 30.	Thomas P. Dukehart . Lee's Branch, Baltimore Co.	
March 31.		
March 31.		
March 31.		
April 1.	Jacob EckstineMillspring, Washington Co.	
April 2.		
March 2.	• • • • • • • • • • • • • • • • • • • •	
April 2.	·	
April 2.		
April 4.		
April 4.	Richard M. Harkins Murphy's Branch, Harford Co.	

DA	TE.	APPLICANT.	WHERE DISTRIBUTED.
April 4. B. C. KnetzerRed Run, Baltimore Co.		ed Run, Baltimore Co.	
April	4.	William M. HarrisPoe's Branch, Carroll Co.	
April	5.	5. Thomas G. Mumford . Carroll Creek, Frederick Co.	
April	· 5.	B. Harrison Bright Bright's Pond, Queen Anne Co.	
April	5.	Charles S. Hilton Hilton's Pond, Montgomery Co.	
April	5.	D. C. DayhoffLi	ttle Antietam, Washington Co.
A pril	5.	R. Ragan SpencerBl	ack Rock, Baltimore Co.
April	7.	James BurchSr	oring Run, St. Mary's Co.
April	11. John W. BurnsMine Run, Baltimore Co.		

Distribution of Brook Trout and Black Bass From Maryland State Hatchery, Druid Hill Park, 1911.

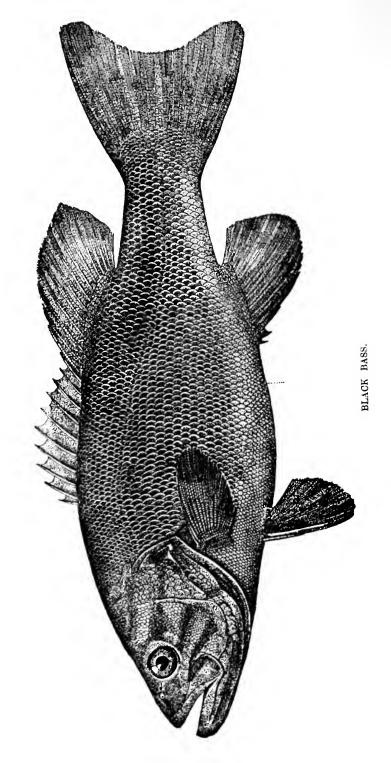
DA	re.	APPLICANT. WHERE DISTRIBUTED.
Jan.	26.	William J. Grove Old Quary, Frederick Co.
Feb.	9.	R. Ragan Spencer North Run, etc., Baltimore Co.
Feb.	9.	Thomas W. OffetRiders Run, Baltimore Co.
Feb.	9.	Sifford PearreStream, Baltimore Co.
Feb.	$9 \cdot$	James L. GoodwinPond, in Baltimore Co.
Feb.	15 .	George Brown, Jr Dipping Pond, Baltimore Co.
Feb.	15.	Thomas G. FisherPoplar Lick, Garrett Co.
March	1.	Van Lear BlackPatuxent, Howard Co.
March		William MiddleditchHazeldel, Harford Co.
March		William Fell Johnson Monks Branch, Baltimore Co.
March		W. T. HignuttMillpond, Caroline Co.
March		Louis C. EtchisonPoplar Branch, Frederick Co.
March		I. Robert Lichlustem . Bennet's Creek, Frederick Co.
March		Frederick Todd Branch of G. S., Baltimore Co.
March		Xaverian BrotherhoodXavier Brook, St. Mary's Co.
March		George Kinney Hunting Creek, Frederick Co.
March	-	Martin E. HorstFarm Spring, Washington Co.
March		Albert S. BraunAnto, Baltimore Co.
March		N. E. MillerPleasant Valley, Baltimore Co.
March		T. J. Miller Miller's Pond, Baltimore Co.
March		D. C. PayhoffLit. Antietam, Washington Co.
March		Wilbert HutchinsHutchins Stream, Baltimore Co.
March		Dr. E. Almony
March		F. W. Fraley Mountain Stream, Frederick Co.
March		William N. MaysTrib. to Lit. Gunpowder, Balto. Co.
March		Elmer HendrixStream, Baltimore Co.
March		Valentine B. ReichardStream, Washington Co.
March		J. Thomas Davis Hunting Creek, Frederick Co.
March	10.	W. C. HammondCat Tail Creek, Howard Co.

DATE.	. APPLICANT. WHERE DISTRIBUT	ED.
March 12	2. Robert Lee HartleLit. Antietam, Washington	Co.
March 13	3. H. N. AnkeneyLit. Conoccheagu, Washing	gton Co.
March 13	3. Henry H. Ducker Hollingsworth Branch, Bal	to. Co.
March 14	4. Jesse C. CoggnisSanitariam Lake, Pr. Geor	ge's Co.
March 15	5. Bruce V. Hoffman Llt. Antletam, Washington	Co.
March 16	6. J. G. M. Reese Stream, Baltimore Co.	
March 18	8. James E. HigmanMill Pond, Queen Anne's C	o.
March 18	8. David H. Snively Branch of Antietam, Wash	ington Co.
March 20	0. John M. Walker Red Run, Baltimore Co.	
March 20	0. Charles I. GrimStream, Washington Co.	
March 21	 S. W. PfoutzPriest Land Branch, Carrol 	1 Co.
March 21	1. W. H. Forsythe Hickey's Branch, Howard	Co.
March 21	1. John M. DennisPond, in Baltimore Co.	
March 21	1. G. H. McPhersonSaw Mill Branch, Anne Aru	ndei Co.
March 21	 Wade H. Crossmore Big Gunpowder, Baltimore 	Co.
March 22	2. Samuel English, Rock Creek, Montgomery C	Co.
March 22	2. J. Frank HuffMill Run Branch, Harford	Co.
March 22	2. James C. Forsyth Hickey's Branch, Howard	Co.
March 2		0.
March 24	4. William R. BlunkStream, Carroll Co.	
March 24	4. Robinson C. Waters Feeder to Plney Creek, Ba	lto. Co.
March 26	6. Gilbert B. BensonHuckelberry Creek, Baltim	ore Co.
March 27	7. William H. GrothePond, Baltimore Co.	
March 27	7. John G. BasslerPond, Howard Co.	
March 30	0. Lewis T. Street, White Marsh Run, Baltimo	ore Co.
March 30		
Apr. 1	1. Dr. H. J. BurtonStream, Baltimore Co.	
	1. T. S. FitchettLaurel Brook, Harford Co.	
•	1. W.V. Winemilier & Bro. Billingsley Branch, Balto.	
•	3. James S. Durvall West Stream, Montgomery	
Apr.	5. Frank Billingsiea Whiteford Branch, Harford	I Co.

Distribution of Perch from State Hatchery, Druid Hill Park, 1911.

DATE.	APPLICANT. WHERE DISTRIBUTED.	
Feb. 7.	J. A. Zimmerman Severn River, Anne Arundel Co.	
Feb. 28.	Arthur BoehmSevern River, Anne Arundel Co.	
March 4.	J. DeCourcey Brennan Severn River, Anne Arundel Co.	
March 6.	John K. Rice Severn River, Anne Arundei Co.	
March 8.	J. Fill Legg Lake Anna, Queen Anne's Co.	
March 8.	R. E. Zimmerman Severn River, Anne Arundel Co.	
March 16.	Arthur D. Foster Severn River, Anne Arundel Co.	
March 20.	John M. WalkerRed Run, Baltimore Co.	
March 26.	Gilbert B. BensonStream In Baltimore Co.	

DA	TE.	APPLICANT. WHERE DISTRIBUTED.
March	27.	Osear WeemsGales Lake, Kent Co.
March	27.	J. N. BensonPond in Anne Arundel Co.
March	30.	Robt. S. Weisenfeld Lake in Baltimore Co.
Apr.	1.	W. C. HammondPond in Howard Co.
Apr.	3.	Samuel AdlerPond in Baltimore Co.
Apr.	3.	Henry MatthewsCat Tail Creek, Howard Co.
Apr.	13.	R. R. MillinerCraney Lake, Queen Anne's Co.
Apr.	14.	Granville Heaps Broad Creek, Harford Co.
Apr.	22.	John M. LittleFalls Stream, Baltimore Co.
May	4.	Dr. J. L. LeMar Herring Run, Baltimore Co.
May	11.	Pembroke M. Wimbie. Severn River, Anne Arundel Co.



BROOK TROUT.

The brook trout is not only one of the most beautiful of our fishes, but, as every angler knows, is a fine game fish. while its flavor will delight the most epicurean taste. prefers clear, cold, swift streams, such as is found in the western part of our State, and which, at one time, was thickly populated by this very fine game and food fish, and we believe that if the work of the last three or four years is continued, that once more many of those streams can be made to abound with brook trout and thus delight the heart of the angler and become a source of not only pleasure but profit to our people. Twenty years ago trout of two, three and even four pounds were not uncommon in Western Maryland. Those fine large trout were of the same species and variety as the fingerling, which many bring home nowadays boasting of their skill as anglers. No brook trout should be taken less than six inches. A trout five inches long is never over a year old and, therefore, has had no chance to spawn.

We have greatly increased the output of brook trout.

SHAD.

A great many persons have asked us how we know the shad returns to the place of its birth, and it gives us pleasure to tell the story in a condensed form so that the fact that the young shad will return in two or three years from the time it is planted to the river in which it is placed will be so impressed upon the minds of all that not a doubt will exist:

Prior to 1871, the shad was unknown to the Pacific coast. That year the United States Fish Commission carried from Havre de Grace, Maryland, a number of young shad such as we plant now in the rivers of this State, and planted them in the Sacramento river, California. Two years later the first shad ever seen in California waters was caught, the next year more were captured and the number has increased from year to year, until now California produces millions of

the finest shad known. After the shad spawns in the Spring it returns again to the ocean, the young do the same and return full grown to the fresh water stream where they first entered into life, ready to commence the increase of their kind.

The periodic movement of shad from the ocean into the fresh-water streams of the Atlantic Coast is one of its most characteristic and well-known habits. This migration begins in the early Winter in Florida and involves all suitable streams as far north as the Gulf of St. Lawrence, which is reached in midsummer. The influx in each basin proceeds gradually from south to north, and the arrival in a given locality is usually about the same time each year and can be predicted with considerable accuracy. Prior to this regular advent of the schools, no shad are in the rivers, and after the completion of the spawning process, which ensues immediately on reaching the headwaters, the adults return to the salt water, and only stragglers are found during the remainder of the season or until the following year.

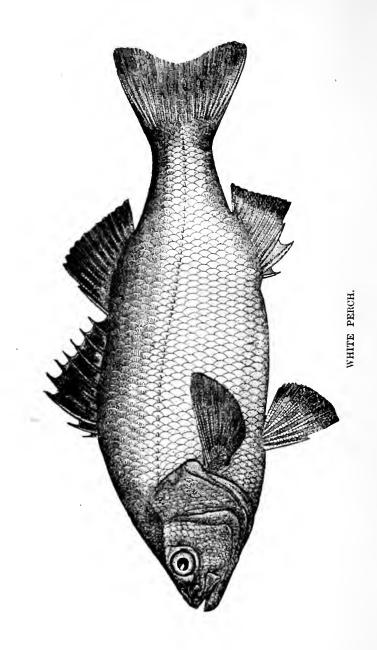
LARGE-MOUTHED BLACK BASS.

It is next to impossible to successfully obtain Bass eggs for artificial propagation and the only way they have been obtained is by pond breeding. We have been able to obtain from the United States Fish Commission, through the indorsements of Senators Isidor Rayner and John Walter Smith, quite a number of fingerling bass, which have been planted in numerous ponds and rivers in Maryland. The large-mouthed black bass is second only to its congener, the small-mouthed species, as a game fish. On the Pocomoke river in Worcester county it is caught by means of the artificial fly and artificial minnow, both of which it takes voraciously and makes a good fight before it is landed. This fish has many vernacular names, among which may be mentioned: Large-mouthed black bass, straw bass, green bass, welshman, chub, and many others, more or less absurd. The

most distinctive and expressive name is doubtless largemouthed black bass. In the western section of the State bass have been plentiful for many years, but it is absolutely necessary to replenish the streams each year because of the great destruction going on at all times.

YELLOW PERCH.

This fish is now greatly in demand as a winter fish. most parts of its range it is highly esteemed, and in many places it is of very considerable commercial importance, and this can truthfully be said of our own State. The Baltimore markets are an evidence of this statement. In the winter months a visit to the fish stalls in the several markets of Baltimore city will convince one that the commercial value of the yellow perch has not been overstated by your Commissioners. As a game fish the yellow perch can be commended chiefly on account of the fact that anybody can catch it. It can be taken with the hook and line any month in the year and with any kind of bait-angle worms, grubs, small minnows, pieces of fish and the artificial fly. easily taken through the ice in winter, when small minnows are the best bait. A yellow perch in the Fish Commission aquarium at Washington deposited a string of eggs three feet four inches long, four inches wide at one end and two at the other. After being fertilized this string weighed two pounds nine ounces, while the weight of the fish before the eggs were discharged was one pound eight ounces. eggs are very small, measuring only one-eighteenth of an inch in diameter, and requiring 28,000 to the quart. This fish is not prized so highly as the white perch, but it is an excellent substitute when the white perch is unobtainable.



HATCHING OPERATIONS

OF THE

Commissioner of Fisheries

FOR THE

EASTERN SHORE 1910-1911.

White Perch Hatched at St. Martin's Hatchery,

March 21, 1910, to April 9, 1910.

Eggs

Fish

Date.	Obtained.	Hatched.
Mareh 21	300,000	275,000
March 22	400,000	300,000
March 24	500,000	400,000
March 25	500,000	400,000
March 26	350,000	280,000
March 30	200,000	150,000
April 2	1,500,000	1,400,000
April 4	500,000	400,000
April 7	25,000	20,000
April 8	25,000	20,000
April 9	50,000	40,000
	4,350,000	3,285,000
Where Deposited		
St. Martin's River		275,000
St. Martin's River		300,000
Pocomoke River		400,000
Trappe Creek		400,000
Showell Creek		280,000
Pocomoke River		150,000
St. Martin's River		1,400,000

Manokin and Pocomoke Rivers.....

Manokin River.....

Perkin's Creek.....

3,285,000

400,000

20,000

40,000

HENRY T. BELL,

Deputy.

Yellow Perch Hatched at St. Martin's Hatchery

From March 14, 1910 to March 31, 1910.

	Eggs	Fish
Date	Obtained.	Hatched.
March 14	1,000,000	900,000
" 15	2,000,000	1,700,000
" 16	2,000,000	1,800,000
44 17	1,500,000	1,450,000
" 18	1,500,000	1,250,000
" 21	3,500,000	3,250,000
44 22	2,000,000	1,800,000
	2,000,000	1,800,000
" 24	1,000,000	900,000
46 25	2,000,000	1,800,000
" 28	1,000,000	900,000
'' 30	500,000	450,000
" 31	500,000	450,000
	20,500,000	18,050,000
Where Deposite	D.	
St. Martin's river		. 900,000
Manklin's creek		1,700,000
Showell creek		. 1,800,000
Taylor's creek		. 1,450,000
Herring creek		
St. Martin's river		. 3,250,000
Trappe creek		
Pocomoke river		. 1,800,000
Wicomico river		. 900,000
St. Martin's river		. 1,800,000
Pocomoke river		. 900,000
Ayres creek		. 450,000
St. Martin's river	• • • • • • • • • • • • • • • • • • • •	. 450,000
		18,050,000

HENRY T. BELL,

Deputy.

White Perch Hatched at St. Martin's Hatchery,

March 15 to 31, 1911.

	Eggs	Fish
Date.	Obtained.	Hatched.
March 15	1,000,000	900,000
March 20	50,000	40,000
March 25	900,000	800,000
March 29	1,000,000	900,000
March 31	50,000	40,000
	3,000,000	2,680,000
WHERE DEPOSITED.		
Pocomoke River		. 900,000
Pocomoke River		. 40,000
St. Martin's River		
St. Martin's River		. 900,000
St. Martin's River		. 40,000
		2,680,000

HENRY T. BELL,

Deputy.

Yellow Perch Hatched at St. Martin's Hatchery,

From March 10 to 31, 1911.

	Eggs	Fish
Date.	Obtained.	II atched.
March, 10	1,000,000	900,000
March 11	500,000	300,000
March 13	2,000,000	1,500,000
March 14	1,000,000	800,000
March 15	2,000,000	1,900,000
March 16	500,000	400,000
March 17	2,000,000	1,500,000
March 18	1,000,000	800,000
March 20	2,000,000	1,600,000
March 22	2,000,000	1,800,000
March 23	1,800,000	1,500,000
March 24	1,000,000	900,000
March 25	2,000,000	1,900,000
March 27	3,000,000	2,500,000
March 28	500,000	300,000
March 29	500,000	400,000
March 31	500,000	400,000
	23,300,000	19,400,000
WHERE DEPOSITED	·.	
St. Martin's River		1,200,000
Pocomoke River		1,500,000
St. Martin's River		800,000
Pocomoke River		1,900,000
Manokin River		2,300,000
At Kingston		1,600,000
At Snow Hill		1,800,000
Wicomico River		1,900,000
Wicomico River		900,000
St. Martin's River		1,900,000
Trappe Creek		2,500,000
St. Martin's River	• • • • • • • • • • • • • • • • • • • •	1,100,000
		19,400,000

HENRY T. BELL,

HAULING SEINE FOR SHAD.

Sharptown Hatching House, 1910.

Sharptown fratching fre	ouse, 1910.	
	Yellow Perch	Fry
	Stripped.	Obtained
Monday, March 28th	400	12,000,000
Tuesday, March 29th	600	18,000,000
Wednesday, March 30th	600	18,000,000
Thursday, March 31st	500	15,000,000
Friday, April 1st	40	1,200,000
Saturday, April 2d	40	1,200,000
	2,180	65,400,000
TURNED OUT	:	•
March 30th, Nanticoke river		12,000,000
March 31st, Nanticoke river		18,000,000
April 1st, Nanticoke river		18,000,000
April 2d, Nanticoke river		15,000,000
April 4th, Marshy Hope river		1,200,000
April 5th, Marshy Hope river		
		65,400,000

S. P. TWIFORD,

Deputy.

Sharptown Hatching House, 1910.

				"White Perch"	Fry
				Stripped.	Obtained.
				20	600,000
				15	450,000
			h	25	750,000
			•	30	900,000
-	-			30	900,000
•					
				50	1,500,000
Tuesday,	April 5t	th		30	900,000
Wednesda	ay, Apri	l 6th.		30	900,000
Thursday	, April	7th		30	900,000
Friday, A	pril 8th			30	900,000
Saturday,	April 9	th		25	750,000
Monday,	April 11	th		25	750,000
Tuesday,	April 12	2th		30	900,000
Wednesda	ay, Apri	l 13th		45	1,350,000
			,	35	1,050,000
Friday, A	pril 15t	h		20	600,000
Saturday,	April 1	6th.,.		10	300,000
Monday,	April 18			20	600,000
				500	15,000,000
			TURNED OUT.		
April 2, M	Iarshy I	Норе	river		1,050,000
5,	4 4			,	1,650,000
6, N	anticok	e rive	r		900,000
8,	6.6		Truits wharf		1,500,000
9,	6.6				900,000
13,	1.4	+ 4			1,800,000
14,	6.6	4.4	Riverton	• • • • • • • • • • • • • • • • • • • •	1.650,000
15,	4.4	4.4			1,650,000
18,	"				2,400,000
	lumb C	reek			600,000
21,	. 4	44			600,000
					15,000,000

S. P. TWIFOLD,

Sharptown Hatching House, 1910.

	Shad	Fry
	Stripped.	Obtained.
Monday, April 4th	3	90,000
Tuesday, April 5th	7	210,000
Wednesday, April 6th	7	210,000
Thursday, April 7th	4	120,000
Friday, April 8th	5	150,000
Saturday, April 9th		
Monday, April 11th	4	120,000
Tuesday, April 12th	6	180,000
Wednesday, April 13th	5	150,000
Thursday, April 14th	4	120,000
Friday, April 15th	6	180,000
Saturday, April 16th		
Monday, April 18th	5	150,000
Tuesday, April 19th	4	120,000
Wednesday, April 20th	5	150,000
Thursday, April 21st	4	120,000
Friday, April 22d	2	60,000
Saturday, April 23d		
Monday, April 25th	2	60,000
Tuesday, April 26th	4	120,000
Wednesday, April 27th	5	150,000
Thursday, April 28th	3	90,000
Friday, April 29th	2	60,000
Saturday, April 30th		
Monday, May 2d	6	180,000
Tuesday, May 3d		
Wednesday, May 4th		
Thursday, May 5th		
Friday, May 6th	2	60,000
Saturday, May 7th	2	60,000
	97	2,910,000

TURNED OUT.

April 10, Nanticoke River, Cooper's Wharf,	300,000
13, Marshy Hope River	330,000
14, Nanticoke River, Knowles' Wharf	150,000
16, Marshy Hope River	300,000
18, Laurel River	270,000
20, Nanticoke River, Truitt's Wharf	
25, Nanticoke River, Riverton	420,000
28, Nanticoke River, Sandy Point	180,000
30, Nanticoke River, Knowles' Wharf	180,000
May 4, Nanticoke River, Ellis' Wharf	300,000
6, Nanticoke River, Dickerson's Wharf	180,000
11, Nanticoke River, Ferry Landing	120,000
	2,910,000

S. P. TWIFORD,

Deputy.

Sharptown Hatching House, 1911.

	Yellow Perch Stripped.	Fry Obtained:
Tuesday, March 28th	75	2,250,000
Wednesday, March 29th	50	1,500,000
Thursday, March 30th	40	1,200,000
Friday, March 31st	100	3,000,000
Saturday, April 1st	100	3,000,000
Monday, April 3d	175	5,250,000
Tnesday, Aprll 4th	150	4,500,000
Wednesday, April 5th	240	7,200,000
Thursday, April 6th	100	3,000,000
Friday, Aprll 7th	75	2,250,000
Saturday, April 8th	50	1,500,000
	1,155	34,650,000

TURNED OUT.

April 3d, N	anticoke F	liver.		 	 		 	 		 	2,250,000
4th, 1	Marshy Ho	pe Ri	ver.	 	 		 	 		 	2,700,000
7th, 3	Nanticoke .	River	٠	 	 		 	 		 	6,000,000
8th, 1	Marshy Ho	pe Ri	ver.	 	 		 	 	٠.	 	5,250,000
10th,	Nanticoke	Rlve	r	 	 		 	 		 	4,500,000
11th,		4.4		 	 		 .	 		 	7,200,000
12th,	6.6	4.6		 	 	٠.	 	 		 	3,000,000
13th,		"			 		 	 		 	2,250,000
14th.	4.			 	 		 	 		 	1.500.000

S. P. TWIFORD,

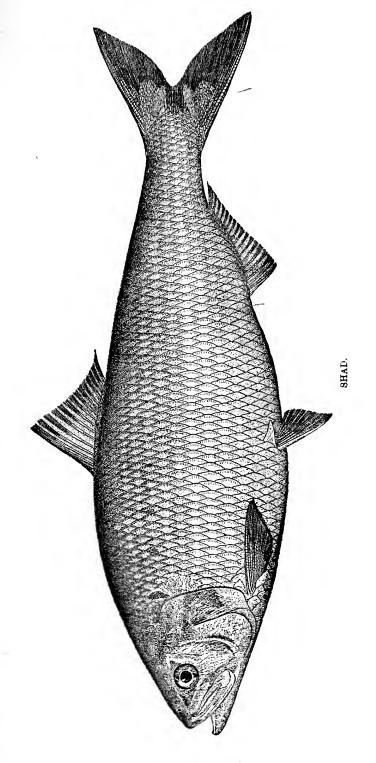
Sharptown Hatching House 1911.

Sharptown matering me	use 1711.	
	White Perch	Fry
	Stripped.	Obtained.
Monday, May 1st	25	750,000
Tuesday, May 2nd	30	900,000
Wednesday, May 3rd	20	600,000
Thursday, May 4th	40	1,200,000
Friday, May 5th	30	900,000
Saturday, May 6th	30	900,000
Monday, May 8th	20	600,000
Tuesday, May 9th	25	750,000
Wednesday, May 10th	15	450,000
Thursday, May 11th	15	450,000
Friday, May 12th	8	240,000
Saturday, May 13	12	360,000
•	${270}$	8,100,000
TURNED OUT.		
May 4, Marshy Hope River	· · · • • • · · • • · · · · · · · · · ·	1,650,000
9, Nanticoke River		1,800,000
11, Nanticoke River Riverton		1,800,000
15, Marshy Hope River	· · · · · · · · · · · · · · · · · · ·	1,350,000
16, Nanticoke, Knowles' Wharf	· • • • • • • • • • • • • • • • • • • •	450,000
22, Wicomico River, Salisbury		
	S. P. Twif	ORD,

Sharptown Hatching House, 1911.

	Shad	Fry Obtained.
	Stripped.	
Monday, April 17th	5	150,000
Tuesday, April 18th	3	90,000
Wednesday, April 19th	4	120,000
Thursday, April 20th	6	180,000
Friday, April 21st	8	240,000
Saturday, April 22d	7	210,000
Monday, April 24th	2	60,000
Tuesday, April 25th	7	210,000
Wednesdsy, April 26th	9	270,000
Thursday, April 27th	8	240,000
Friday, April 28th	10	300,000
Saturday, April 29th	6	180,000
Monday, May 1st	4	120,000
Tuesday, May 2d	7	210,000
Wednesday, May 3d	10	300,000
Thursday, May 4th	9	270,000
Friday, May 5th	8	240,000
Saturday, May 6th	6	180,000
Monday, May 8th	10	300,000
Tuesday, May 9th	10	300,000
Wednesday, May 10th	6	180,000
Thursday, May 11th	10	300,000
Friday, May 12th	8	240,000
	163	4,890,000
TURNED OUT.		
April 24th, Nanticoke River, Cooper's Wharf.		240,000
26th, Nanticoke River, Knowles' Wharf		300,000
28th, Nanticoke River, Truitt's Wharf		450,000
29th, Nanticoke River, Wheatley Wharf.		
May 3d, Nanticoke River, Riverton		510,000
4th, Nantleoke River, Sandy Point		•
8th, Marshy Hope River		
11th, Nantleoke River, Cooper's Wharf		
15th, Marshy Hope River		
17th, Nanticoke River, Ellis' Wharf		,
·	C D Trues	

S. P. TWIFORD,



Tuckahoe Hatching House, 1910.

WHERE DISTRIBUTED.	
WHERE DISTRIBUTED.	Fry Obtained.
Watts Creek, Choptank River. Wye Creek. Miles River. Cambridge. Greensboro, Choptank River. Lloyds, Tuckahoe River. At Statlon, Tuckahoe River. White Perch at Station, Tuckahoe River.	1,500,000 1,500,000 2,000,000 2,000,000 1,000,000 10,000,000
Total	21,000,000
Shad for 1910. Shad Stripped	
Shad Stripped	Fry Obtained.

J. E. MORGAN,

Deputy.

250,000

 $250,000 \\ 500,000$

800,000

300,000 500,000

500,000

8,650,000

Tuckahoe Hatching Station, 1911.

14th, Watts Creek, Choptank River.....

17th, Golden Hill, Chester River.....

18th, Tan Yard, Choptank River.....

Perch	Fry
Stripped.	Obtained.
60	1,800,000
120	3,600,000
300	9,000,000
233	6,990,000
120	3,600,000
40	1,200,000
60	1,800,000
933	27.990.000
	Stripped. 60 120 300 233 120 40

DISTRIBUTION OF PERCH.

	16th, Watts' Croek, Choptank, River 17th, Brick Mill, Choptank River 17th, Greensboro, Choptank River 18th, Milliugton, Chester River 19th, Wye River	• • • • • • • • • • • • • • • • • • • •	2,000,000 2,000,000 3,000,000 2,000,000 3,000,000
	21st, Miles River		3,000,000
:	21st, At station, Tuckahoe		5,000,000
	22d, Centreville, Corsica River		4,000,000
:	22d, Tredavon		3,000,000
	Total		27,000,000
		J E. More	
	(100 - 00 - 00 - 00 - 1011		Deputy.
	Shad for 1911.	CD. a.d	E.
		Shad	Fry
	ent.	Stripped.	Obtained.
	11th	4	120,000
	14th	6	180,000
	19th	7	210,000
	20th	11	330,000
	21st	9	270,000
	24th	10	300,000
	25th	8	240,000
	26th	9	270,000
	27th	14	420,000
	28th	$\frac{12}{13}$	360,000 $390,000$
May	29th	16	480,000
may.	1st	17	510,000
	3d	14	420,000
	4th	12	360,000
	5th	21	630,000
	6th	16	480,000
	8th	$\frac{10}{20}$	600,000
	9th	$\tilde{1}\tilde{2}$	360,000
	10th	8	240,000
	11th	9	270,000
	12th	8	240,000
	Total	256	7,680,000
	DISTRIBUTION OF SHAI).	
April			100,000
111/11/	26, Brick Mill, Choptank River		250,000
	29, Greensboro, Choptank River		300,000
	30, Millington, Chester River		1,000,000
	30, Georgetown Sassafras River		1,000,000
May	1, At station, Tuckahoe		100,000
•	3, Miles River		250,000
,	9, Wye River		250,000
	12, Salisbury		1,800,000
	13, Watts Creek, Choptank River		250,000
	14, Federalsburg, Nanticoke River		500,000
	15, Centreville		500,000
	15, At station, Tuckahoe		500.000
	17, At station, Tuckahoe		1,200,000
	Total		7,680,000
	J	. E. Morgan,	Dept.

Salisbury Hatching House, 1910. SHAD.

		Eggs	Finh
$D\epsilon$	ite.	Obtained.	Hatched.
April	11th		
	14th		
	15th	30,000	25,000
	16th	80,000	70,000
	18th	128,000	125,000
	19th	150,000	125,000
	21st	150,000	125,000
	22d	100,000	90,000
	23d	150,000	140,000
	25th	150,000	140,000
	26th	140,000	125,000
	27th		
	28th	180,000	160,000
	29th	100,000	90,000
	30th	100,000	80,000
May	2d	200,000	180,000
	3d	250,000	225,000
	4th	50,000	40,000
	5th	50,000	40,000
	7th	50,000	40,000
	10th	40,000	25,000
	13th	50,000	30,000
	14th		
		2,148,000	1,885,000
	Where Disti	RIBUTED.	
Pogos	moke River		. 1,000,000
	kin River		
	mico River		. 385,000

E. M. ELLIOTT,

Deputy.

1,885,000

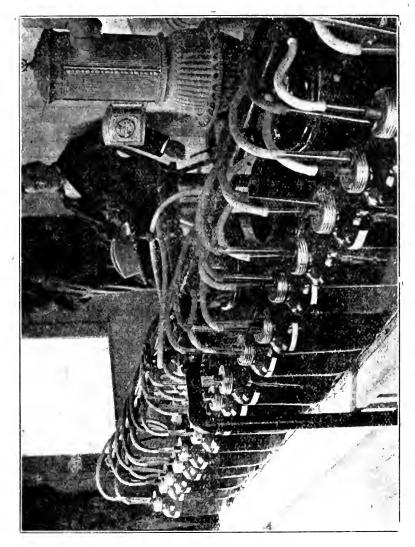
Salisbury Hatching House, 1911.

SHAD.

		Eggs	Fish
$D\epsilon$	ute	Obtained.	Hatched.
April	17th	150,000	140,000
"	18th	100,000	80,000
"	19th	125,000	100,000
"	20th	125,000	100,000
4.6	21st	250,000	200,000
"	22d	250,000	200,000
66	24th	75,000	50,000
"	25th	250,000	200,000
"	26th	250,000	200,000
" "	27th	200,000	150,000
"	28th	250,000	200,000
"	29th	250,000	200,000
May	1st	300,000	250,000
"	2d	175,000	160,000
"	3d	200,000	180,000
"	4th	240,000	200,000
4.6	$5 ext{th}\dots$	250,000	200,000
"	6th	200,000	180,000
"	8th	200,000	140,000
"	9th	240,000	200,000
4.4	10th	325,000	300,000
"	11th	280,000	260,000
		4,785,000	3,890,000
	WHERE DEP	osi te d.	
Poco	moke River		. 1,000,000
Man	okin River	• • • • • • • • • • • • • • • • • • • •	. 1,000,000
Wice	mico River	4	. 1,000,000
	tanis Wicomico River		
			3,890,000

E. M. ELLIOTT,

Deputy.



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